## CLAIMS

## What is claimed is:

- 1 1. A device for cutting a strip of tissue of approximate width W from a mass of tissue, said device comprising:
- an elongate cutting tube having a distal end and a lumen that opens through an opening in the distal end;
- first and second cutting edges being formed on generally opposite edges of the distal end of the cutting tube said first and second cutting edges being separated by a distance D;
- said cutting tube being advanceable through tissue such that the first and second cutting edges will cut a strip of tissue having approximate width W, said approximate width W being approximately equal to the distance D between the first and second cutting edges.
- A device according to Claim 1 wherein the cutting tube comprises a
  stainless steel hypodermic tubing.
- 1 3. A device according to Claim 1 further comprising at least one 2 protruding tip formed on the distal end of the cutting tube.
- 1 4. A device according to Claim 2 wherein the protruding tip is tapered.
- 1 5. A device according to Claim 2 wherein the protruding tip is sufficiently
- 2 blunt to be substantially a traumatic.
- 1 6. A device according to Claim 1 wherein the first and second cutting
- 2 edges are located on opposite lateral sides of the distal end of the cutting
- 3 tube.

- 1 7. A device according to Claim 4 wherein the first and second cutting
- 2 edges are located on opposite lateral sides of the distal end of the cutting tube
- and the protruding tip is located on the bottom of the distal end of the cutting
- 4 tube.
- 1 8. A device according to Claim 7 further comprising a blunt edge located
- 2 at the top of the distal end of the cutting tube.
- 1 9. A device according to Claim 1 wherein there is a single bend or curve
- 2 formed in the cutting tube.
- 1 10. A device according to Claim 9 wherein there is a single bend of
- 2 approximately 20 degrees to approximately 90 degrees formed in the cutting
- 3 tube.
- 1 11. A device according to Claim 10 wherein the bend is approximately 90
- 2 degrees.
- 1 12. A device according to Claim 1 wherein there are a plurality of bends or
- 2 curves formed in the cutting tube.
- 1 13. A device according to Claim 12 wherein there are a plurality of bends
- 2 of approximately 20 degrees to approximately 90 degrees each formed in the
- 3 cutting tube.
- 1 14. A device according to Claim 12 wherein there is a first bend of
- 2 approximately 90 degrees and a second bend of approximately 90 degrees,
- 3 formed in the tube.
- 1 15. A device according to Claim 1 further comprising a source of negative
- 2 pressure connected to the lumen of the cutting tube so as to aspirate fluid or
- 3 matter through the lumen of the tube.

- 1 16. A device according to Claim 1 wherein the device further comprises a
- 2 second lumen.
- 1 17. A device according to Claim 16 wherein one of the lumens is
- 2 connected to a source of fluid such that fluid may be infused therethrough and
- 3 the other of said lumens is connected to a source of negative pressure such
- 4 that fluid or matter may be aspirated therethrough.
- 1 18. A device according to Claim 1 wherein at least one of the cutting edges
- 2 is heated such that it will cauterize as it cuts.
- 1 19. A device according to Claim 1 further comprising apparatus for
- 2 severing the strip of tissue when the strip of tissue has reached a desired
- 3 length.
- 1 20. A device according to Claim 19 wherein the apparatus for severing the
- 2 strip of tissue comprises at least one electrode which, when energized, will
- 3 sever the strip of tissue.
- 1 21. A device according to Claim 1 wherein the device further comprises:
- 2 a second tube that has a lumen and a distal end;
- wherein the cutting tube extends through the lumen of the outer tube
- 4 with a distal portion of the cutting tube extending out of and beyond the distal
- 5 end of the outer tube.
- 1 22. A device according to Claim 21 wherein:
- 2 the outer diameter of the cutting tube is smaller than the inner diameter
- 3 of the second tube such that fluid may flow through the lumen of the second
- 4 tube; and
- at least one aperture is formed in the second tube to permit fluid to
- 6 pass into or out of the lumen of the second tube.

- 1 23. A method for cutting a strip of tissue of width W from a tissue mass, 2 said method comprising the steps of:
- A) providing a device which comprises;

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- i. an elongate cutting tube that has a distal end and a lumen that opens through an opening in the distal end; and
  - ii. first and second cutting edges formed on generally opposite edges of the distal end of the cutting tube, said first and second cutting edges being separated by a distance D that is approximately equal to the width W of the strip of tissue to be cut; and
  - B) advancing the distal end of the cutting tube through the mass of tissue such that the first and second cutting edges cut a strip of tissue of approximate width W.
- 1 24. A method according to Claim 23 wherein the mass of tissue is *in vivo*.
- 1 25. A method according to Claim 23 wherein the mass of tissue is in vitro.
- 1 26. A method according to Claim 23 wherein the mass of tissue is located
- within the body of a human or animal subject.
- 1 27. A method according to Claim 26 wherein the strip of tissue is removed
- 2 for a diagnostic or therapeutic purpose.
- 1 28. A method according to Claim 27 wherein the subject suffers from
- 2 glaucoma and wherein the method is carried out to remove a strip of
- 3 trabecular meshwork from an eye of the subject to facilitate drainage of
- 4 aqueous humor from the eye thereby lowering intraocular pressure.
- 1 29. A method according to Claim 28 wherein Step B comprises:
- 2 inserting the device into the anterior chamber of the eye;
- 3 positioning the distal end of the cutting tube adjacent to or within the
- 4 trabecular meshwork of the eye; and

- advancing the cutting tube such that the cutting edges cut a strip of approximate width W from the trabecular meshwork.
- 1 30. A method according to Claim 29 wherein the device provided in Step A
- 2 of the method further comprises a protruding tip and wherein the protruding tip
- 3 is advanced through the trabecular meshwork and into Schlemm's Canal and,
- 4 thereafter, the protruding tip is advanced through Schlemm's Canal as the
- 5 cutting tube is advanced to cut the strip of tissue.
- 1 31. A method according to Claim 23 wherein the device provided in Step A
- 2 further comprises apparatus for severing the strip of tissue after the strip of
- 3 tissue has reached a desired length and wherein the method further
- 4 comprises the step of:
- 5 C) severing the strip of tissue after the strip of tissue has reached a
- 6 desired length.
- 1 32. A method according to Claim 23 wherein the method is carried out to
- 2 form an incision in skin, mucous membrane, an organ, a tumor or other
- 3 anatomical structure.
- 1 33. A method according to Claim 23 further comprising the step of:
- 2 C) removing the strip of tissue through the lumen of the cutting
- 3 tube.
- 1 34. A method according to Claim 33 wherein the lumen of the cutting tube
- 2 is attached to a source of negative pressure to aspirate the strip of tissue
- 3 through the lumen of the cutting tube.
- 1 35. A method according to Claim 23 wherein the device provided in Step A
- 2 further comprises a second lumen and wherein the method further comprises:
- infusing a fluid through one of said lumens; and
- 4 aspirating fluid and/or matter through the other of said lumens.